

Bullfrog Mine
2.5 Miles west of Rhyolite
Nye County
Nevada

HAER No. NV-2

HAER
NEV,
12-RHYO.V,
1-

PHOTOGRAPHS

HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
National Park Service
Department of the Interior
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HISTORIC AMERICAN ENGINEERING RECORD

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NV-2

Location: 2.5 miles west of Rhyolite, Nye County, Nevada

Date of Construction: 1904-07, intermittently until 1950's

Present Owners: E.R. Fegert Inc.

Present Use: Abandoned. Currently being reopened as part of an open pit mining operation by the owners

Significance: Associated with the strikes that set off one of the last major gold mining booms in the Southwest. These strikes had a major impact upon the regional settlement patterns and economic activities of southern Nevada and southeast California in the early 20th century.

Historians: Linda W. Greene and John A. Latschar, 1980

IV. Inventory of Historic Resources--The East Side

A. The Bullfrog Hills

1. Introduction

In 1900 the state of Nevada was entering its third decade of depression. The incomparable Comstock Lode, which had stimulated the migration of 60,000 people into the Nevada territory, had financed a major portion of of the northern effort during the Civil War, had made Nevada into a state, and had spawned numerous smaller mining booms between the 18⁵⁰s and the 1870s, had died out by 1880. Since then, no new strikes of importance had been found, the population of the state had fallen to 40,000, and the economy was suffering the effects of twenty years of decline. Some cynics even suggested that Nevada should revert to territorial status. Such was the fate of a state whose entire economy was built around the boom and bust cycle of a mining frontier.¹

In 1900, however, the cycle was reversed. Silver was discovered at Tonopah that year, and massive high-grade gold deposits were located at Goldfield two years later. The great boom days returned to Nevada, and prospectors, spurred by dreams of untold riches, once again blanketed the mountains and deserts of Nevada. No more discoveries were made which rivaled the riches of Tonopah and Goldfield, but numerous smaller camps were established which bloomed briefly on the desert, dreaming of becoming another Virginia City. Rhyolite, the metropolis of the Bullfrog district, was one of these camps.

Gold was first discovered in the Bullfrog district in the summer of 1904. The initial finds were high-grade surface ore

1. Russel R. Elliott, Nevada's Twentieth-Century Mining Boom: Tonopah, Goldfield, Ely, (1966), pp. vii-viii, 1-2.

assayed at \$700 per ton--just the kind of stuff to start a boom. Shorty Harris, one of the discoverers, later described the reaction of Goldfield when he and his partner, Ed Cross, brought in their samples:

I've seen many gold rushes in my time that were hummers, but nothing like that stampede. Men were leaving town in a steady stream with buckboards, buggies, wagons and burros. It looked like the whole population of Goldfield was trying to move at once. Timekeepers and clerks, waiters and cooks--they all got the fever and milled around wild-eyed, trying to find a way to the new "strike". . .

A lot of fellows loaded their stuff on two-wheeled carts--grub, tools and cooking utensils, and away they went across the desert, two or three pulling the cart and everything in it rattling. Men even hiked the seventy-five miles pushing wheelbarrows.

When Ed and I got back to our claim a week later, more than a thousand men were camped around it, and more were coming every day. A few had tents, but most of them were in open camps.

That was the start of Bullfrog and from then on things moved so fast that it made us old timers dizzy.²

Although Shorty Harris was guilty of much romanticizing in his later interviews, events did indeed move fast. Towns sprang up overnight in competing locations. Amargosa was laid out on September 30th and had sold 35 lots within three weeks. Beatty, to the southeast, was located on October 20th, and the towns of Bullfrog, Bonanza and Rhyolite were started by competing townsite companies in November--all within a few miles of each other. Amargosa reported 1,000 lots sold before the town was two months old, some for as high as \$200 each, and by November the town boasted three stores, four saloons, two feed lots, restaurants,

2. Shorty Harris, "Half a Century Chasing Rainbows," Touring Topics, October 1930, pp. 18-20. Rhyolite Herald, 29 March 1907.

boarding houses, lodging houses, a post office and 35-40 other tent buildings. Prices, of course, were in proportion to the boom atmosphere and the costs of freighting 70 miles from Goldfield. Lumber for building was scarce and sold for \$100 per 1,000 board feet, while hay for prospectors' burros and teamsters' mules went for \$100 a ton.

The boom continued through the spring of 1905. Thirty teams a day left Goldfield for the Bullfrog district in January, and one traveler counted fifty-two outfits arriving in the district during one day in March. Confusion reigned supreme, especially for prospectors who left town for a few days in March, to find upon their return that the entire town of Amargosa had picked up and moved a few miles south to the town of Bullfrog. Bonanza's citizens had the same experience, as their town was moved to Rhyolite. Mining claims changed hands furiously, for ground near a publicized claim was worth \$500 to \$2,000, even if a pick had yet to strike the earth. By May, Rhyolite counted twenty saloons, a sure sign of wealth.³

By late spring, the dust had settled a little, at least to the point where one could leave home overnight and expect the town to be in the same location when returning. Rhyolite and Bullfrog, located only three-fourths of a mile apart, had become established as the leading towns of the district, with Beatty, four miles to the east, running a poor third, and Gold Center barely surviving. Four daily stages connected the district with the outside world, post offices were running at Beatty, Bullfrog and

3. Inyo Independent, 30 September, 21 October, 18 November, 23 December 1904; 27 January, 5 May 1905. Inyo Register, 20 October 1904; 16 March, 30 March 1905. Rhyolite Herald, 5 May 1905.

Rhyolite, lots in Rhyolite which sold for \$100 in February were selling for \$4,400, and wheel and faro games were going twenty-four hours a day. "It reminds one of the old times," remarked one prospector. In addition, Rhyolite, Bullfrog and Beatty each had a bank, and each had a weekly newspaper. The Bullfrog Miner printed its first issue on March 31st, the Beatty Bullfrog Miner on April 8th, and the Rhyolite Herald on May 5th.

The boom kept pace through June. 3000 people were estimated to be in the district, the telephone line was completed to Bullfrog and Rhyolite, and the telegraph office opened. Over 300 messages were sent over the wires on the first day of operation, mostly to Goldfield brokers and stock dealers. By the first anniversary of the district in August, both Bullfrog and Rhyolite had their own piped-in water systems, Rhyolite had yet another bank, and the two towns had a population of 2,500, with another 700 at Beatty and 40 in the tent city of Gold Center. The Rhyolite Herald listed 85 incorporated companies working in the district.⁴

The pandemonium subsided somewhat in 1906, as the rush phase of the boom slowly turned into the more controlled phase of development. 165 mining companies were reported working in the district, and all had hopes of developing another mother lode with just a few more feet of digging. Rhyolite gradually won the battle with Bullfrog and by spring had emerged as the metropolis of the southern desert, when Bullfrog's store, saloons and newspaper moved up the hill to Rhyolite. Not one, but three railroads announced plans to construct lines into the district.

4. Rhyolite Herald, 5 May, 2 June, 18 August 1905. Bullfrog Miner, 9 June 1905. Walter N. Frickstad, A Century of Nevada Post Offices, (1958), pp. 4, 24. S.H. Ball, A Geologic Reconnaissance in Southwestern Nevada and Eastern California, USGS Bulletin #308, (1907), p. 25.

Then, the first hint of disaster struck, with the earthquake and fire of San Francisco. Feverish developments slowed momentarily, as miners, owners, and promoters waited to see what effect the destruction of the west coast's financial center would have upon their fortunes. The boom spirit was still too prevalent, however, for the effect to be prolonged, and with the promise of financial aid (if needed) from mining promoter Charles Schwab, the bustle returned to camp. By the end of 1906, Rhyolite seemed assured of its self-proclaimed title of Queen of the Desert, when the Las Vegas and Tonopah Railroad completed its tracks into town. With the advent of cheaper rail freightage rates, the camp was certain to add to its monthly payroll of \$100,000, and to continue its development.⁵

The year of 1907 was another good one. Fifty cars of freight per day were arriving over the Las Vegas & Tonopah in February. The town had grown to a population of 3,300, and lots at the heart of Rhyolite were selling for \$10,000. A school census was taken which showed 250 children of school age, so a wooden schoolhouse was built, as was a concrete and steel jail for older folks. The Rhyolite Stock Exchange was incorporated and opened on March 25th, to ease the effects of feverish stock trading on the over-worked telegraph wires to Goldfield and San Francisco. In June, the Bullfrog-Goldfield Railroad came into town, opening rail connections with the north, and in September electric power was brought into town over the poles of the Nevada-California Power Company. The power was hooked into the already-wired homes, stores and offices of Rhyolite, as well as into the machinery of the big Montgomery-Shoshone mill, which soon began operations.

5. Bullfrog Miner, 23 March 1906. Rhyolite Herald, 27 April 1906. Mining World, 5 May 1906, p. 564. David F. Myrick, Railroads of Nevada and Eastern California, Vol. II, (1963), p. 478.

Another newspaper, the Rhyolite Daily Bulletin, appeared to compete with the district's three weekly papers. Production figures for the district went over \$100,000 for the first time during the month of September, and the arrival of the Tonopah and Tidewater Railroad the next month augured even more prosperity.⁶

Even the panic of 1907, which some would call a depression, did little to dampen the spirits of Bullfroggers. Newspapers noted, almost with wonder, that the panic seemed to affect the Bullfrog district much less than it did other mining camps in Nevada and California. The local banks were forced to issue script for a few months, due to the shortage of cash, but the local merchants gladly accepted it--even advertised for it--and the panic was put down to the manipulations of greedy eastern financiers. Despite the panic, property values sky-rocketed during 1907, and the year-end tax rolls reflected the prosperity of the young town, which was assessed taxes on almost two million dollars worth of real and personal property.⁷

1908 followed suit. The year opened with the big Montgomery-Shoshone mill treating 200 tons of ore per day, and with the promise of more mills to open soon, thus increasing the district's production and prosperity. To house all this money, the grand three-story, \$60,000 John S. Cook Bank Building was completed in January. By February, all the banks were back on a

6. Inyo Register, 7 Feb 1907. Bullfrog Miner, 8 February, 29 March 1907. Rhyolite Herald, Pictorial Supplement, March 1909. Rhyolite Daily Bulletin, 23 September, 16 October 1907. Myrick, Railroads of Nevada, II, 517, 556. Harold O. Weight, Rhyolite: The Ghost City of Golden Dreams, (1953), pp. 18-26.

7. Rhyolite Daily Bulletin, 19 October 1907. Bullfrog Miner, 7 December 1907. Nye County Recorder's Office, 1907 Assessment Rolls, Nye County, Rhyolite.

cash basis, and reported that they had needed only half the amount of script which had been printed for use during the Panic. Production soared as new mills and mines went into operation, reaching an estimated \$170,850 in the month of April. By September, the Bullfrog district ranked as the third largest producer in the state of Nevada, trailing only Goldfield and Tonopah. The Las Vegas and Tonopah Railroad finished its magnificent passenger station in June, which immediately became one of the showcases of the southern Nevada region. By the end of the year, the Rhyolite Herald estimated the total production for 1908 as close to \$1,000,000.

Construction continued apace, as the three-story concrete and stone Overbury building was completed in December at a cost of \$50,000. Now at its height, Rhyolite fairly bustled with activity. The newspapers enthusiastically claimed a population of 12,000, although a more probable estimate would be 8,000. The town now had an opera house, a new \$20,000 concrete and steel, two-story school building, hotels, ladies' clubs, and even a swimming pool. The large concrete and stone buildings which dominated the main streets were flanked by hundreds of wooden stores, offices and residences, although a few late-arrivals still lived in tents on the outskirts of town. The Western Federation of Miners' local union, with its healthy membership, union hall and hospital, threatened to surpass the local at Tonopah. Rhyolite even had a manufacturing base of two foundaries and machine shops, and the Porter Brothers, leading merchants, had built their original tent store into a imposing building complete with freight elevators and a stock worth \$100,000. Dance halls and brothels, ever a sign of prosperity in a mining camp, spilled over from their assigned districts on several occasions, drawing the attention of the town

council. Rhyolite and the Bullfrog district, it seemed, had arrived.⁸

In the meantime, the Rhyolite and Bullfrog boom were having much the same effect upon the surrounding Death Valley country as Goldfield and Tonopah had had upon the entire state. Spurred by the Bullfrog boom and dreams of wealth, prospectors swarmed out of Rhyolite into the hills and deserts of ~~southeastern~~^{western} Nevada and south~~western~~^{eastern} California. Backed by flush Rhyolite merchants and promoters, these men examined the countryside as it has never been examined before or since. For a while, the results seemed almost too good to be true, for strikes and mining camps blossomed out of the wilderness almost everywhere one could see. On the east side of Death Valley; the entire South Bullfrog district grew up around the Keene Wonder mine, while farther to the south arose the boom camps of Lee, Echo, Schwab, Greenwater, Gold Valley and Ibex. Farther to the west, across the Death Valley sink, prospectors out of Rhyolite found and established the mines and camps of Emigrant Springs, Skidoo, Harrisburg and Ubehebe. All these camps looked upon Rhyolite as the metropolis of the desert, and Rhyolite merchants, teamsters and outfitters, located at the railhead, profited immensely from being situated at the distribution center for the region.

As usual, however, the gold fever which swept the country contained more fever than gold. Some of the smaller camps died almost as soon as they were born, leaving little more than a ripple on the surface of time. Some, like Greenwater, spent all their energy on booming, and when the dust had settled, nothing

8. Mining World, 4 Jan 1908, p. 41. Bullfrog Miner, 29 February, 2 May, 3 October 1908. Rhyolite Herald, 30 December 1908; Pictorial Supplement, March 1909. Myrick, Railroads of Nevada, II, 484. Weight, Rhyolite, pp. 18, 33, 35.

was left to be seen. Most lasted a year or two, or even three. But with the exception of Skidoo and the Keane Wonder, all the smaller camps died before Rhyolite, and the fate of the offspring presaged the fate of the parent.

On the surface, Rhyolite seemed as robust as ever in early 1909, and the citizens of the town even started a movement to split the county in two, making Rhyolite the county seat of the southern portion. Such ambitions, however, were hopeless, for the cracks were already appearing in the facade. Although the boom spirit had carried the Bullfrog district through the San Francisco disaster and the panic of 1907 without appearing to harm the camp, underlying problems were beginning to surface. Investor confidence was weakened by the financial difficulties, a fatal blow to any mining camp. Two of the three Rhyolite banks had closed by the end of 1909, and shady dealings involving two of the district's most promising mines further shook investor confidence. The Montgomery-Shoshone mill continued to mill its low-grade ore throughout 1909, but there is nothing romantic about low-grade ore. A brief new boom at Pioneer, to the north, seemed to arrest the process of decline for a short time, but a disastrous fire roared through that camp before it was even built, and it never recovered.

The process of decay is harder to document than that of boom, since the local newspapers would never dare print any discouraging news, but the evidence was there. The Rhyolite Daily Bulletin was the first newspaper to close, printing its last issue in May of 1909, and the Bullfrog Miner followed suit in September. The December tax rolls told the real story. When the time came to ante up for county taxes, owners of 156 properties--or 28 percent of the total tax base--elected to quietly leave town and let their properties be confiscated by the county treasurer, rather

than spending more money in a losing cause. As the Mining World summed up, "Mining operations in the Bullfrog district were rather dull last year."⁹

The camp plodded through 1910, struggling to keep alive, and hoping that some prospector would make the strike which would bring back the days of prosperity. Their hopes were doomed, however, and when tax time rolled around again, 168 taxable properties (44 percent) were left to the care of the county treasurer, as their owners had departed. The First National Bank closed its doors that year, the last bank to leave Rhyolite.

The trend accelerated in 1911, when the Montgomery-Shoshone, the only mine to make any significant production in the district, finally shut down in May. The 1911 tax rolls again showed owners of 118 properties (43 percent) leaving town rather than pay taxes, and the Mining World sounded the death knoll. "The Bullfrog district is almost deserted, save by a few lessees, who at intervals make a small production. . . . The Montgomery-Shoshone, after demonstrating that ore averaging \$6 a ton could be profitably milled, has closed down, having exhausted its pay ore."¹⁰

The Bullfrog district, too, was exhausted. The town and camp did not die with a bang, and hardly with a whimper.

9. Bullfrog Miner, 9 & 30 January, 27 February, 8 & 22 May 1909. Rhyolite Herald, 14 August 1909. Melvin Owen Warns, The Nevada "Sixteen" National Banks and Their Mining Camps, (1974), p. 87. Nye County Recorder's Office, 1909 Assessment Roll, Rhyolite. Mining World, 22 January 1910, p. 193.

10. Rhyolite Herald, 25 March 1911. Warns, Nevada's "Sixteen" National Banks, p. 87. Nye County Recorder's Office, 1910 Assessment Roll, Rhyolite; 1911 Assessment Roll, Rhyolite. Mining World, 27 January 1912, p. 228.

Companies who had money left in their treasuries held on to properties, hoping for a comeback, and several dozen intrepid souls stayed on in Rhyolite, eeking out existence by leasing mines and extracting occasional small shipments of ore. The great days, however, were definitely gone forever. The Rhyolite Herald finally gave up and closed down in June of 1912, and the town slowly died.

Periodic efforts were made to reorganize and rework the mines on a small scale, which kept Rhyolite from becoming a complete ghost town for several years, but none were successful. In 1914, the Las Vegas & Tonopah discontinued service to the town, above the protests of the few remaining citizens. In 1916, the Nevada-California power company cut off electricity to Rhyolite, and began to salvage its poles and wire. The Inyo Register described the once thriving town in December of that year: "Rhyolite, once a camp claiming several thousand population, is practically a deserted village . . . the movable buildings have been moved away from time to time, and the process is still going on. At present it is contributing to the upbuilding of the camp of Carrara . . ." By 1920, although a few companies and individuals still held on to their Rhyolite properties, hoping against hope for a revival, the camp was completely deserted."¹¹

And so Rhyolite was slowly dismantled to serve the needs of new boom camps, and the cycle was completed. Although small-scale efforts were made to revive the camp from time to time--including one during the fall of 1978--the good days were gone. Today, the crumbling remains of its once imposing

11. Rhyolite Herald, 22 June 1912. Inyo Register, 30 July 1914; 7 December 1916. Nye County Recorder's Office, 1920 Assessment Roll, Rhyolite.

structures, together with its picturesque location, make it one of the west's most popular ghost towns. Ironically, Beatty, 4 miles to the west, which played little sister to Rhyolite throughout the boom years, was saved from decline by the construction of Nevada Highway 95, and today that little town of several hundred thrives on the trade of tourist, military personnel and truckers traveling between Las Vegas and Reno.

All was not in vain, however. The Bullfrog district produced \$1,687,792 worth of ore in the four short years between 1907 and 1910, doing its part, along with the other small camps and the bonanzas of Goldfield and Tonopah, in pulling Nevada out of its two-decade slump. Without the stimulus of this early twentieth-century mining boom, of which Rhyolite and the Bullfrog district were a distinct part, Nevada would not have had the new economic base with which to survive the great depression, and to emerge as a prosperous mineral, tourist and military state of today.¹²

Just as important, without the boom and bust days of Rhyolite and the surrounding territory, we would not have the opportunity today to study, appreciate and preserve the memories of these early twentieth-century mining camps. And, thanks to the Bullfrog boom, Death Valley National Monument is rich with such a heritage of bygone days.

12. B.F. Couch and J.A. Carpenter, "Nevada's Metal and Mineral Production, 1859-1940," University of Nevada Bulletin #37 (1943), pp. 111-112.

2. Original Bullfrog Mine

a. History

In the late summer of 1904, two wandering prospectors happened to meet at the Keane Wonder Mine, on the east slope of Death Valley. Ed Cross, the first, was an occasional prospector who had participated in mining rushes from time to time. Cross, however, was an "amateur" prospector, since he had a home and farm in Long Pine, California, to which he would return between forays. Attracted by the Goldfield boom, Cross was on his way towards that region, and had stopped off at the Keane Wonder to look over the country surrounding that recent discovery.

The other prospector, Frank "Shorty" Harris, was a veteran desert rat. Shorty bragged that he had attended every mining rush in the country since the 1880s, including those of Leadville, Coeur d'Alene, Tombstone, Butte, British Columbia, and others. Like most prospectors, Shorty had, as yet, nothing to show for his efforts. He had already been through the initial Tonopah and Goldfield booms, but had gotten there too late to locate any close-in ground. Now, like Cross, Shorty Harris was determined to give the Goldfield territory another look, and the two men teamed up.

Like countless other prospectors who were scurrying around the deserts, Cross and Harris dreamed of finding another bonanza like those of Goldfield and Tonopah. As the two men trugged across the Amagosa Valley, that dream loomed large before them, for they were about to make the discovery which would initiate the great Bullfrog boom, and which would change forever the history and territory of southwest Nevada.

Accounts of the next few days vary wildly, as romantic tales of big discoveries are wont to do. Both Cross and

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Harris repeated their versions in later years many times over, and it is difficult to find any two versions which agree. Apparently Shorty persuaded Ed to make a detour on the way to Goldfield, in order to examine some rock outcroppings which he had noticed on an earlier trip. There, on the east side of the Amargosa Valley, the discovery was made. Both men knew at first glance that they had found something big, but how big would have to be determined by the Goldfield assayer's report. Quickly locating a claim, staking the ground, and naming the mine the Bullfrog, for the distinctive mottled green ore, the two men set out north for Goldfield, to record their claim, have their samples assayed, and to celebrate.

The rock samples indicated that the mine had ore worth over \$700 to the ton--truly bonanza stuff. News of the discovery soon spread through Goldfield, and by morning the rush to the newly named Bullfrog District was on. In the meantime, Ed Cross went north to Tonopah to record the claim there in addition to Goldfield, since no one knew whether the mine was located in Esmeralda or Nye county. By the time Ed got back, Shorty was half-way through a six day drunk, sometime during which he sold his share of the Bullfrog mine. Cross later claimed several times that Shorty got no more for his share than \$500 and a mule, although Shorty once claimed to have received \$1,000, and thirty years later said he got \$25,000. At any rate, Shorty Harris was out of the picture. Like most old-time prospectors, he had spent most of his life looking for a gold mine, and had sold it for a pittance when he found it.

Ed Cross was more business-like, as he reported to his wife. After several deals fell through, Ed sold his share to a group of mining promoters for cash and a share of the stock in a company formed to exploit the mine. Ed later claimed to have received \$125,000 for his share of the mine, but that figure is

probably inflated. But whatever the exact amounts, both Cross and Harris had sold out--one for drink and the other for stock certificates. Which would prove to be the better deal was yet to be seen. It is certain, however, that neither of the two prospectors who started the great Bullfrog boom made much profit from their discovery--but that is nothing new in the history of mining.¹³

By early fall, the Bullfrog boom was in full bloom. Tents, towns and prospectors surrounded the area of the Bullfrog Mine, as prospectors and promoters rushed to get in on the ground floor. In short succession, mine after mine was discovered in the vicinity, and the Bullfrog District became the talk of the west coast. In the meantime, the Original Bullfrog Mines Syndicate, organized to operate the original discoveries, was incorporated by the Goldfield promoters dealing with Ed Cross, and actual mining was started. The company advertised a capital stock of 1,000,000 shares, with a par value of \$1 each, but they did not say how much actual cash was placed in the treasury to finance the development efforts. As events proved, it wasn't enough. Ed Cross was given a seat on the board of directors of the company, as befitted the owner of one sixth of the mine.

Initial development through the fall and winter of 1904 were promising. The company reported ore assaying as high as \$818 to the ton, and began sacking high-grade ore for shipment to Goldfield smelters. On March 23, 1905, the Original Bullfrog Mine made the first big shipment out of the new district. Ore estimated to be worth \$10,000 was escorted through Rhyolite by

13. Rhyolite Herald, Pictorial Supplement, March, 1909. Lucien M. Lewis, "He was in on the Bullfrog Jackpot," Desert Magazine, December 1946, pp. 20-21. Tom G. Murry, "Letters From a Death Valley Prospector," Desert Magazine, June 1963, pp. 8-11. Carson City Land Office, Mineral Survey #2294.

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five armed guards and the Rhyolite band. The Original Bullfrog Mine, symbol of the entire Bullfrog district, was now a shipper and a producer. More good strikes were made in the shafts and tunnels through May and June; sixteen men were employed at the mine; a 15 horsepower gasoline hoist was ordered to enable deeper sinking; and the mine superintendent expressed the hope that shipments of high-grade ore would pay for all development costs, thus saving a strain upon the company's treasury. By August of 1905, the superintendent estimated that the company had between \$750,000 and \$1,500,000 worth of ore in sight in the mine.¹⁴

The Original Bullfrog Mine continued to reflect the optimism of the entire district throughout the fall and winter of 1905. As shafts and tunnels went deeper, ore veins continued to show profitable values in gold, even though no rich shoots were found, such as the early surface discoveries. The Bullfrog District became so famous on a national level, that the United States Geologic Survey decided that it was worth examining. Frederick L. Ransome, an eminent western mining expert, made a study of the district's geologic formations and mines during the fall of 1905. Since Ransome was the first detached, outside observer of the district, his conclusions are of interest. The district, he wrote, was predominantly a low-grade proposition, and would have trouble making a profit, due to problems of transportation and water supply. After the first publicized shipments, such as that from the Original Bullfrog Mine, none of the mines planned to make further shipments, due to excessive costs, until the railroads arrived. In essence, he concluded, the Bullfrog District was not the bonanza it

14. Inyo Independent, 25 Nov 1904. Mining & Scientific Press, 26 November 1904, p. 362. Engineering and Mining Journal, 23 March 1905, p. 594. Rhyolite Herald, 26 May, 23 & 30 June, 14 & 21 July 1905.

liked to believe it was, but the mines could be made to pay on a large-scale basis, given careful and economical management. Nor was Ransome more impressed with the Original Bullfrog Mine than with others. "Some bunches of rich ore have been found," he wrote, "but the mass as a whole is of very low grade."¹⁵

Happily for the Bullfroggers, however, Ransome's report was not printed for another two years, and the district hummed along merrily in the meantime. The Original Bullfrog Company continued to get encouraging results from its development works, and applied for a U.S. patent to their claims in January of 1906. A distinguished mine superintendent was hired away from the famous Gilpin County district of Colorado in the late spring, and the company installed a gas hoist and gallows frame on its property, in order to facilitate deeper mining. Even the brief financial panic brought about by the San Francisco earthquake and fire failed to slow development work, and William Ress celebrated his first anniversary as proprietor of the Original Bullfrog boarding house in May.

After examining the mine and its future prospects, Samuel Newell, the new superintendent from Colorado, decided that he would be there long enough to settle down, and set home for a bride. Mrs. Newell arrived in August and moved out to the mine site to live with her husband. Unfortunately, the summer climate of the Nevada desert did not agree with her, and she died in late September of "desert fever."¹⁶

15. Frederick L. Ransome, Preliminary Account of Goldfield, Bullfrog and Other Mining Districts in Southern Nevada, USGS Bulletin #303, (1907), pp. 41, 53.

16. Bullfrog Miner, 12 Jan, 9 & 23 March, 3 August, 28 September 1906. Mining World, 27 January 1906, p. 158. Rhyolite Herald, 9 March, 20 April, 18 May 1906.

The tragic loss of his two-month bride failed to diminish the energy of superinendent Newell. With the arrival of cooler weather in October, development was increased at the mine. The main shaft was now 250 feet deep, the mine was employing two shifts, of miners, and landlord Ress was feeding 30 miners, most from the Original Bullfrog. By November the shaft was down to 300 feet, and although no rich ore had been found since the shaft had left the surface, the newspapers reported "encouraging values," a vague description at best. By the end of the year, improvements on the property included the main shaft, two working shafts, and a long crosscut tunnel. Physical property included the gasoline hoist, gallows frame, a small orehouse, ore cars and miscellaneous tools.

In the meanwhile, another development had taken place. On October 26th, Ed Cross had taken a lease from the company to work a 200 by 300 foot tract of the Original Bullfrog claim. Leasing at this stage of the mine's development could only mean that the company directors no longer felt that it was financially feasible to maintain a monopoly on development rights to its own property--a sure indication that things were not looking good. Cross, in a typical lease, was given one year to work the property and take out ore, while paying the company a royalty on any profits he was able to make. Cross had good luck initially, and by the end of 1906 was employing twelve men on his lease and had built an office.¹⁷

As 1907 began, the Original Bullfrog Mine had already seen its best days. Even though the railroad had now

17. Rhyolite Herald, 26 October, 14 December 1906. Bullfrog Miner, 26 October, 16 & 23 November, 7, 14 & 28 December 1906. Nye County Recorder's Office, 1906 Assessment Roll, Rhyolite.

arrived, making possible the shipment of lower grade ore, the mine was not able to gain a profitable status. Development work continued throughout the year, by both the company itself and by Ed Cross on its lease, but time was running out. The initial treasury fund was almost depleted, and the advent of bigger and more promising mines in the district discouraged stock sales. Shares in the Original Bullfrog Mines Syndicate, which had sold for 25¢ in November of 1906, had fallen to 7½¢ by July of 1907. Desperately, the company continued, hoping to find that elusive high-grade vein which would make the mine a boomer once more, but hopes were doomed.

Ed Cross, despite his limited success on his lease, saw the handwriting on the wall, and decided not to renew the lease when it expired. Finally, the Panic of 1907 dealt the death-blow to the Original Bullfrog mine. With the treasury stock depleted, and with several of the leading owners facing extreme financial difficulties brought on by the panic, there were no more funds for development work in the mine. On August 26th, the mine was closed and the employees laid off. The company's president issued a statement claiming that the closure had nothing to do with the financial crisis, but no one held their breath while waiting for the mine to reopen. For the rest of the year, the mine was not worked, and when tax time rolled around in December, the company let its property go on the delinquent roll, rather than pay \$46.20 in taxes. Shares of Original Bullfrog stock were now selling for 3¢ each.¹⁸

In the spring of 1908, the mine was reactivated, but on a small scale. No longer did the superintendent

18. Rhyolite Herald, 4 January 1907. Bullfrog Miner, 30 November 1906, 27 July, 31 August, 14 December 1907. Nye County Recorder's Office, 1907 Assessment Roll, Rhyolite.

announce grand plans for future development works, or the building of mills. Rather, the mine limped along on a very small scale, attempting to extract enough ore to cover operating costs. Leasing arrangements were sought, in order to bring more money into the treasury, and several individuals were lured by the magic of the Bullfrog name. Superintendent Newell managed to make several shipments of ore, but in small quantities--total April production, for example, reached the grand sum of \$350, while lease-holders managed to ship \$790 worth of ore in May.

Even these low figures did not reflect profits. One shipper, who had ore worth \$160 a ton from a Bullfrog lease, paid over \$20 to the railroad for shipping charges and over \$37 to the Goldfield smelter for reduction charges, leaving him with a profit of \$103 for his labor, before he paid the Original Bullfrog Company its royalty. By now it was clearly evident, as Ransome had pointed out several years before, that the Original Bullfrog Mine was a very low grade proposition, which could not be profitably exploited under present conditions. By the end of 1908, both stockholders and the company had come to agree with that assessment. Stock sales had slumped to 1¢ per share, and the company again could not find the money to pay its \$34.65 in county taxes. Still, hoping against hope, several lease-holders hung on.¹⁹

In March of 1909, the Rhyolite Herald, in its grand pictorial supplement, gave a long history of the discovery and developments of the Original Bullfrog mine, sadly concluding that "The work has not proceeded . . . to the point of placing the

19. Bullfrog Miner, 2 May, 18 April, 11 July 1908. Rhyolite Daily Bulletin, 11 April 1908. Rhyolite Herald, 3 June, 4 November 1908. F.L. Ransome, et al, Geology and Ore Deposits of the Bullfrog District, Nevada, USGS Bulletin #407 (1910), p. 122. Nye County Recorder's Office, 1908 Assessment Rolls, Rhyolite.

property in the regular producing list." This was as far as a Rhyolite newspaper was willing to go towards admitting that the mine was dead. The Nye county treasurer, however, was willing to go farther, and in August of 1909 seized the movable property of the company in consideration for two years of unpaid taxes. Still, some hardy and hopeful individuals were willing to risk a few months' labor in the hope of finding the elusive green ore, and the property was working sporadically on a leasing basis.

By 1910, when it was becoming apparent that the entire Bullfrog District was dying, the Rhyolite Herald indulged in that favorite speculation of what-might-have-been. After discussing the early glory days of the district and the Original Bullfrog Mine, when high-grade ore was being shipped under armed guard, the Herald lamented: "If that kind of stuff, which ran up into the many hundreds of dollars per ton, had stayed in the Original instead of pinching out, the story of Bullfrog would be another tale than what it is." True, but

Although the boom days were now definitely over, hope still persisted, as it can only do in a mining camp. In 1912, the success of a neighboring mine provoked rumors that the Original Bullfrog would be reorganized and reopened, but nothing happened. Small time operators continued to work the ground in 1913 and 1914, through leases. The patented claims of the mine lay on the delinquent list of the county tax roll, for want of anyone to pay back taxes and reclaim the land. In 1917 a group of promoters incorporated the Re-Organized Original Bullfrog Mines Syndicate, but again nothing came of that effort.²⁰

20. Rhyolite Herald, Pictorial Supplement, March 1909, 2 October 1909; 4 June 1910, 20 & 27 April 1912. Mining World, 27 June 1914, p. 1219. Nye County Recorder's Office, 1909-1917 Assessment Rolls, Rhyolite. Nevada Secretary of State, Articles of Incorporation, Vol 32, p. 74. Nye County Deed Book, Vol. 22, pp. 537-66.

Nothing is harder to kill than the mystique of a name, especially a name such as the Original Bullfrog, with its intimate connections with the glorious boom and bust of the Bullfrog district. Time and again, throughout the following years, miners, prospectors, promoters and even movie stars were attracted by the prevailing mystique of the Original Bullfrog Mine. Surely, they thought, there must be something there, if this was the mine which started the whole thing. Their efforts were met with various degrees of middling success.

In the late 1920's the New Original Bullfrog Mines Company was organized and fitful shipments were made for several years before the enterprise folded. In 1930, Roy Pomeroy, a Hollywood executive, put together an organization with the backing of contemporary movie stars, and bought the Original Bullfrog as well as several other mines in the district. The Nye County treasurer, however, was soon listing all those properties once again on the delinquent tax roll.

In 1937 the Original Bullfrog, along with other mines, was purchased by the Burm-Ball Mining Company, which operated for several years, extracting small-scale shipments, before leasing them to other operators. These lease-holders operated intermittently through the 1940s and into the 1950s, but without any significant success. In 1955, one E.J. Kinsinger bought the mine, and like the Burm-Ball, continued to pay taxes on it, without deriving much benefit. In 1961, Kingsinger sold the mine to the H.H. Heislars, an old-time couple who moved back to Rhyolite and settled into the old Las Vegas and Tonopah passenger station. The Heislars in turn sold out to the Nevada Minerals Exploration

Company in 1974, and the claims were again sold in 1976, to Boyce Cook and Lenard Cruson.²¹

So lived and died the Original Bullfrog mine. Considering its history, which saw only insignificant production and small-scale mining efforts, the mine itself would hardly be worth remembering. It was, however, much more than just a mine--it was and is the symbol of the entire Bullfrog mining district, and all that that entails. The Original Bullfrog Mine was the spark which lit the Bullfrog boom, and that boom was in turn responsible for several other booms, the building of two towns, Rhyolite and Beatty, and the transformation of the entire history and economy of a large portion of the southwestern Nevada region.

And what of the two lonely prospectors who made the discovery? Shorty Harris went on, as most old-time prospectors did, to hunt again for gold in the desert. Amazingly, Shorty found gold a second time, at Harrisburg, on the western rim of Death Valley. Again, however, Shorty was unable to capitalize upon his discovery, and he died in 1934, alone on the desert, still looking for gold, and with little but his burro and his blanket to his name. Ed Cross, after giving up on his lease at the Original Bullfrog, returned to his home and farm in California and died at his daughter's house in 1958.²²

21. Mining Journal, 15 May 1926, p. 37; 30 July 1927, p. 30; 30 September 1940, p. 28; 20 March 1941, p. 22. Leslie C. Mott, Mining Activities and Sales Opportunities in the State of Nevada, Los Angeles County Chamber of Commerce, Domestic Trade Report #66, (1937), p. 26. Victor E. Kral, "Mineral Resources of Nye County, Nevada," University of Nevada Bulletin, #45 (January 1951), p. 35. Nye County Recorder's Office, 1926-1978 Assessment Rolls, Rhyolite and Beatty.

22. Murray, "Letters From a Death Valley Prospector," p. 8.

b. Present Status, Evaluation and Recommendations

Due to the close proximity of the Original Bullfrog Mine to the workings of the Bullfrog West Extension Mine, the physical remnants of the two mines have been confused more often than not by recent studies. Since the mines were owned and operated, in recent years, by identical parties, the discussion of the historic structures, together with conclusions and recommendations, will be found at the end of the West Extension section.

3. Miscellaneous Bullfrogs and Tadpoles

One of the first rules of the mining game is that one must get in on the "ground floor" in order to make money. If possible, an experienced prospector will hurry to the scene of the latest strike, locate ground as close as possible to it, and form a company with a similar sounding name. Between 1905 and 1910, this game was played to perfection by various and sundry miners and promoters in the Bullfrog District, as ninety companies were incorporated with the magic word "Bullfrog" somewhere on their letterheads. A few of these companies were in the vicinity of the Original Bullfrog, most--but not all--were within the boundaries of the Bullfrog District, and all hoped to lure stockholders' funds by advertising their proximity to the big strike. Some of the companies even went so far as to try mining.

A goodly number of these miscellaneous Bullfrog companies located ground within the present boundaries of Death Valley National Monument. Some, like the Bullfrog Winner Mining Company, the Bullfrog Western Mining Company, the United Bullfrog Mining Company, the Bullfrog Plutos Mining and Milling Company, the Bullfrog Gold Note Mining Company, and the Bullfrog Jumper Company, never did more than locate their claims, incorporate a company, sell stock to gullible investors, and never sank a pick into the ground.²³

Other "close-in" companies were more interested in actually mining. Among these were a group of assorted Bullfrog mines which surrounded the Original Bullfrog on all sides, much like ants around a pool of honey. These companies, all of which were located and incorporated soon after the beginning of the

23. Nevada Secretary of State, Articles of Incorporation, 1905-1910.

Bullfrog rush, all sank shafts as close as possible to the Original Bullfrog claims, hoping that the peculiarities of geologic formations would cause the rich green ore found by Harris and Cross to dip and angle into their properties.

Of the seven companies which surrounded the Original Bullfrog ground, six were utter failures, and one--the Bullfrog West Extension--got lucky, for the unpredictable Original Bullfrog ledge penetrated its property. Although this seems like a high rate of failure, it was about the norm for the risking business of mining. The Bullfrog West Extension was the earliest of the mines which sprung up around the Original Bullfrog, thus emphasizing another mining dictum that the "firstest gets the mostest." As an example of an unusual success, its story will be told later. The other six mines were not so fortunate, and the following are the brief tales of some ill-fated companies which attempted to cash in on the Bullfrog bonanza.

a. Bullfrog Extension Mining Company

On August 25th and 26th 1904, a group of prospectors located two claims, the Delaware #2 and the Last Chance, on the north and east sides of the Original Bullfrog. Together with the Bullfrog Extension #1 and #2, on the southeast of the Original Bullfrog, these four locations were incorporated in February of 1905 as the Bullfrog Extension Mining Company. The incorporation was the usual one, with 1,000,000 shares of stock offered to the public at a par value of \$1 each, and it was backed by San Francisco financiers. In May the company had enough money in its treasury to begin mining, and by June a six-man crew had sunk an inclined shaft 75 feet into the ground. Development continued through the summer and fall, and in November the company was the proud owner of a 25-horsepower gasoline hoist, a frame office building for the mine superintendent, and a 141-foot

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shaft. By January of 1906, the company felt confident enough to advertise that it had a "magnificent quartz" ledge on its property which was "conservatively estimated" to be worth \$500,000.

The promising developments at the Bullfrog Extension were halted by the San Francisco earthquake and fire in mid-April of 1906, and the mine was idle from then until June. Even though stock in the company was selling at its all-time high of 13¢ per share in late June, work was again halted for unknown reasons, and was not resumed until late October. By the end of 1906, although the company was still delving for ore, no significant discoveries had been made. Still, the company readily paid its county taxes of \$24.86, assessed on personal property consisting of a 25-horsepower gas hoist, a twelve by sixteen-foot frame engine house, and a small office building, one ore car, and miscellaneous tools.²⁴

Developments continued during the first part of 1907, as the company vainly attempted to find traces of the Bullfrog ore on its property. For a few months prospects looked good, as described in the Bullfrog Miner on March 29th. The Bullfrog Extension, it reported, was "sinking at the rate of two shifts a day on a practically sure thing." Stockholders shared the optimism of the company and the newspaper, as the price of Bullfrog Extension stock was still holding at 12¢ per share in April. The panic of 1907, however, which hit the Bullfrog district in the fall, had a decided effect upon the fortunes of the company. The stock, after

24. Carson City Land Office, Plat of the Bullfrog Extension Mining Company. Nevada Secretary of State, Articles of Incorporation, Foreign, #8½-1905. Rhyolite Herald, 2 June, 13 October, 17 November 1905; 1 June, 14 September, 26 October, 14 & 28 December 1906. Bullfrog Miner, 12 January, 4 May, 1 June 1906. Nye County Recorder's Office, 1906 Assessment Roll, Rhyolite. Handbook on Nevada Mines, pub. by Goldfield News, (1906), p. 12.

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dropping from 12¢ to 5¢ in one month, had completely disappeared from the trading board by October. For a mining concern heavily dependent upon stock sales for operating cash, this was a disastrous blow.

The company rallied, however, and on November 1st announced an assessment of 2¢ per share of stock, payable to the secretary by December. Stockholders were thus faced with the choice of paying 2¢ a share more into the company treasury in an attempt at saving a mine whose stock was then worthless, or of forfeiting their shares to the company. (Assessment was illegal in Nevada, due to many past abuses, but the Bullfrog Extension was incorporated in Arizona, a more permissive state.) The assessment was partially successful, for the company was able to raise enough cash to pay its 1907 taxes--although they were paid late--but not enough was collected to pay for any future development works. The mine lay idle throughout 1908, and the company was forced to call for another assessment of 1¢ per share in December of that year. This time so few stockholders responded that the company was not able to pay its taxes, and the property of the Bullfrog Extension Mining Company entered the county's delinquent tax rolls.²⁵

In 1909, one last attempt was made to revive the fortunes of the Bullfrog Extension. This time the owners had no hope of raising enough cash to operate on their own, so in June of that year they advertised in the hope of attracting lessees. It would seem strange that the Bullfrog Extension would still be attempting to develop a mine in 1909, since the Original

25. Rhyolite Herald, 4 January, 22 February, 1 November 1907; 2 December 1908. Bullfrog Miner, 29 March, 26 April, 4 May 1907. Nye County Recorder's Office, 1907 and 1908 Assessment Rolls, Rhyolite.

Bullfrog--the catalyst of the district--had already died. The neighboring West Extension property, however, was uncovering good ore, so the Bullfrog Extension changed its emphasis, and advertised its potential as a neighbor of the West Extension, rather than as a neighbor of the Original Bullfrog.

The advertisements were successful, and the property was leased in October. The new promoters then advanced a scheme which was absolutely fantastic, even for the Bullfrog district. The lessees incorporated not one, but three separate leasing companies, each of which had a lease on a different section of the Bullfrog Extension ground. The promoters then placed a long and confusing advertisement in the Rhyolite Herald, attempting to explain their scheme. Potential stockholders were invited to invest in each of the three companies, which jointly held a three-year lease to the Extension property. Although the leasing companies were incorporated separately, they would then develop the Extension mine on a combined basis. As an extra added bonus, the purchasers of the first 50,000 shares of stock in each of these companies would receive, "free of cost," an equal number of shares in the Bullfrog Extension Mining Company--a promotional gimmick of no real risk, since Bullfrog Extension stock had been worthless for two years by this time.

The leasing scheme, as fantastic as it was, enabled the company to raise enough cash to hire a miner to do the annual assessment work on the Bullfrog Extension property, and to pay the 1909 county taxes of \$18.00. Too few investors, however, could be fooled all the time, and the leasing companies folded before doing any work. The property was idle throughout 1910, although the company still retained enough cash to pay for the annual assessment work and the \$18.00 in county taxes. By September of 1911, the company had finally given up hope, and the gas hoist and

gallows frame were dismantled from the Bullfrog Extension property and shipped to Rawhide, for installation on a promising mine in that district. It was a very typical fate for mining equipment, buildings, tools, and anything else of value in a dying mine.²⁶

b. Big Bullfrog Mining Company

Located in the south of the Original Bullfrog, this mine had its inception in August of 1904, when "old man" Beatty, a local small-time dry rancher for whom the town of Beatty was named, located the Mammoth claim. Beatty soon sold out to a group of San Francisco financiers, who incorporated the Big Bullfrog Mining Company in 1905. The company owned just the one claim, but nevertheless formed the usual organization, with 1,000,000 shares of stock, par value \$1. Developments commenced, and by the end of 1905 the company boasted of a 16-horsepower hoisting engine, and a 2-horsepower blower engine for the ventilation of its 120-foot shaft. The company was described as "exhibiting good ore" in a Rhyolite newspaper, whatever that meant.

Developments continued on an optimistic level in early 1906, as the company succeeded in finding some ore which assayed as high as \$180 per ton. Stockholders, on the basis of this discovery, offered to sell their stock for 14¢ a share, but no one was willing to buy. In March the company announced that it had uncovered a body of milling grade ore worth \$14 a ton. Excitement mounted, since \$14 ore was enough to make the Big Bullfrog a paying proposition, provided that great care and

26. Rhyolite Herald, 9 June, 2 October, 11 & 25 December 1909; 17 December 1910; 2 September 1911. Nye County Recorder's Office, 1909-1910 Assessment Rolls, Rhyolite.

economy was taken, and that the ore deposits proved to be massive enough to warrant a large-scale operation.

In April, however, the San Francisco disaster drastically undercut the fortunes of the Big Bullfrog Company. The superintendent halted work at the mine when he learned of the calamity, and did not resume operations until the middle of September. The company then reported that "satisfactory progress" was being made through October and November, but no more ore bodies were found. At the end of 1906 the company held assets of one 16-horsepower engine, an engine house and gallows frame, several ore cars, and mining tools, for which it paid \$29.32 to the county in taxes.²⁷

The Big Bullfrog Company opened 1907 with a flair of development work, sinking its shaft to the 250-foot level, and opening up two ledges, with "fair values exposed." By March, however, the flair had definitely fizzled, for as the Bullfrog Miner wrote, the mine had "no material values." "Last week work was suspended for unknown reasons," continued the paper, as if the absence of any paying ore was not reason enough to close the mine. Stock in the mine slowly settled to 1¢ a share, and then disappeared from the trading board altogether, as it became evident that the mine would never again reopen. The Big Bullfrog had breathed its last, and with the exception of annual assessment work

27. Rhyolite Herald, 13 October, 8 December 1905; 5 & 26 January, 2 March, 27 April, 14 September, 26 October, 16 November 1906; Pictorial Supplement, March 1909. Bullfrog Miner, 30 March 1906. P. LaMontagne, Nevada, the New Gold State: An Up-to-Date Description of the Mining Interests of Tonopah, Goldfield, Bullfrog, Diamondfield, Goldreef, etc., (1905), p. 47. Nye County Recorder's Office, 1906 Assessment Roll, Rhyolite.

done in January of 1908, no further word was heard from another failed venture.²⁸

c. Bullfrog Fraction

In December of 1904, Len P. McGarry, mining promoter, stock dealer, and president of the Bullfrog West Extension Mining Company, noticed that the ground claimed by his company did not coincide with the boundaries of the Original Bullfrog. Between the Bullfrog claim of the Original Bullfrog company and the Delaware and Ethel claims of the West Extension, there lay a parcel of land, 1.7 acres in all, which was unclaimed. McGarry immediately located and recorded this ground as the Bullfrog Fraction claim. Then, interestingly enough, he sold it to outside mining promoters instead of selling or deeding it to his own company. Although this would seem to be a clear conflict of interests, such moves were not that unusual in the cut-throat business of mining.

Fractional claims are the bane of miners, and the delight of lawyers, and this one was no exception. Hardly had the new owners started to work, when their claim was disputed by the owners of the Bullfrog Apex Mining Company, owners of the North Bullfrog claim, whose boundaries conflicted with those of the Fraction, as well as those of the West Extension and the Bullfrog Extension. When the Apex company filed for a patent to the North Bullfrog claim in May of 1906, both the West Extension and the Bullfrog Extension filed adverse actions against the granting of the patent. Then, when high grade ore was found on the Fraction claim in June, matters got even more serious. For a while, the big

28. Rhyolite Herald, 4 January 1907; 4 January 1908. Bullfrog Miner, 29 March, 4 May 1907.

companies tried to settle the matter by furiously working the ground in question, with the Bullfrog Fraction caught hopelessly in the middle. Then, in July, the West Extension and Bullfrog Extension both filed suit in court against the Bullfrog Apex Company, and a long legal battle ensued. The Rhyolite Herald correctly surmised that the struggle would be lengthy and costly for all concerned. "If they fight it out someone is bound to lose, while all will be put to great expense," wrote the editor. "Think it over, gentlemen, think it over."

The gentlemen involved, however, had already thought it over as much as they wished, and during the remainder of 1905 and for most of 1906, the case wound its way slowly through the Nevada court system. In the meantime, the owners of the Bullfrog Fraction, surrounded by litigants which desired their ground, continued to develop their claim, and continued to find good ore leads. As their claims grew more valuable, and as the court battles grew more involved and more expensive, it became clear to them that they could no longer protect their claim by themselves. Accordingly, in November of 1906, they gave up and sold the Bullfrog Fraction to the West Extension Company. That company in turn incorporated the West Extension Annex Company to develop the Bullfrog Fraction claim, and began to operate the two mines as one.

The Bullfrog Fraction thus disappeared as a separate mine, and became part of the West Extension holdings--where it would originally have been had the president of the West Extension, Len P. McGarry, seen fit to benefit his company rather than his pocketbook two years previous. As a bonus to the West Extension, and as a great aid in its fight against

the Apex, the Bullfrog Fraction was granted a patent (which had been applied for by the previous owners) in March of 1907.²⁹

d. Bullfrog Apex Mining and Milling Company

The Bullfrog Apex Mining and Milling Company was incorporated on August 4, 1905 by a group of promoters headed by J.J. Fagan and E.L. Andrews. The incorporation was a rather typical one, listing capital stock of 1,000,000 shares, par value \$1 each. The company listed itself as the owner of 15 claims, only one of which was ever worked--the North Bullfrog. There was only one problem with the North Bullfrog claim: it intruded into the boundaries of the Delaware claim of the West Extension Company, the Delaware #2 claim of the Bullfrog Extension Company, and completely covered the small parcel of ground known as the Bullfrog Fraction.

As events were to prove, the organizers of the Apex Company knew about these conflicting boundaries when the North Bullfrog claim was filed, but they forged ahead anyway, hoping to capitalize upon a few technical mistakes committed by the other companies. Work on the Apex ground started in the fall of 1905, and soon all the competing companies were sinking shafts within a stone's throw of one another. The original Bullfrog shaft was the focal point, with the Apex Company sinking only forty feet away from it, the Bullfrog Extension working on the east, the Bullfrog Fraction on the west, and the West Extension to the west of the Bullfrog Fraction.

29. Carson City Land Office, Plat of the Bullfrog Fraction, Survey #2496. Rhyolite Herald, 4 May, 16 & 23 June, 4 August 1905; 27 July, 31 August, 3 October, 2 November 1906. Nye County Recorder's Office, Deed Books, Vol 13, p. 395.

The development race between these companies continued through the early part of 1906. The Apex encountered encouraging ore values, stock sales were adequate at 11¢ per share, and the promoters were confident enough of the mine's prospects that they decided to apply for a patent. That, however, was the move which spelled the end of the mine. When the Apex filed its papers for patent, the local newspapers, as required by law, published the legal description of the claim boundaries. When these were published, the West Extension Company immediately realized that the Bullfrog Apex was attempting to patent land which the West Extension had a prior location to, and it filed an adverse action against the Apex application, and then filed for its own patent.³⁰

While the patent applications and adverse suits were slowly winding their way through the jurisdiction of the U.S. Land Office at Carson City, both companies continued to sink development shafts and tunnels, trying to find the elusive ore bodies, and determine if there was anything underneath the ground worth fighting for. When the Apex Company uncovered a vein of gold assaying \$251 to the ton, the question was settled, and the legal battle intensified. The Bullfrog Extension had by now realized that the Apex patent also infringed upon its ground, and filed a second adverse suite against it. At about this time, the struggle was elevated from the Land Office to the civil court system of Nevada.

Law suits, then as now, took time, and in the meanwhile all the companies involved continued to develop their mines.

30. Nevada Secretary of State, Articles of Incorporation, Foreign, #28½-1905. Rhyolite Herald, 17 November, 15 December 1905; 4 May 1906. Bullfrog Miner, 6 April, 4 May 1906. Handbook on Nevada Mines, p. 10.

At the very least, the company which lost the suit hoped to extract the best ore from the ground before the case was ever heard, thus minimizing its losses. By October, the Bullfrog Apex realized that the West Extension was winning this particular race to gut the contested ground, and managed to obtain a writ of claim and delivery, stopping the West Extension from shipping high grade ore from the mine until the suit was settled.

When the first hearing of the case took place, in the local Rhyolite court on October 9th, the judge soon realized that the case was too complex for him, and transferred it to the district court at Tonopah. The move meant higher legal costs to all parties involved, but it also meant more time to exploit the mines while awaiting results. But by this time the Apex was running into trouble. The great publicity surrounding the court suit was taking its toll upon the company, for the Apex was a relatively unheralded company, compared to the well-known West Extension and the less famous Bullfrog Extension companies. As a result, the stock of the Apex, which had been selling at a high of 11¢ per share in May of 1906, fell completely off the trading board within a few weeks of the announcement of the legal suits. Strapped for money to proceed with either the development of its prospect or the long legal battle, the Apex took its case to the people, in the form of a long newspaper advertisement. The appeal, however, seemed to have little effect, for Bullfrog Apex stock did not reappear on the market.³¹

As 1906 gave way to 1907, conditions remained much the same. The case slowly ascended the court calendar in

31. Bullfrog Miner, 18 May, 5 October 1906. Rhyolite Herald, 1 June, 27 July, 31 August, 19 October, 9 November 1906.

Tonopah, and the West Extension, Bullfrog Extension and Bullfrog Apex companies continued to develop their respective portions of the disputed ground. By this time the West Extension Company had increased its stake in the affair through the purchase of the Bullfrog Fraction ground, which effectively doubled the amount of land at dispute between it and the Apex. On February 8th, the case was finally heard in the district court at Tonopah, and the opposing factions were given another thirty days to file final briefs.

Finally, during the first week of May, the Tonopah court rendered its judgement. The ground known as the Delaware claim of the West Extension, and that known as the Bullfrog Fraction, the court announced, had been located and recorded properly prior to the location of the North Bullfrog claim of the Bullfrog Apex Company. Thus, despite the contentions of the Apex attorneys that the former claims had been allowed to relapse, the court found that such was not the case, and ruled entirely in the favor of the West Extension and Bullfrog Extension companies. The West Extension gleefully placed a full page ad in the Bullfrog Miner, announcing that title to its ground was now uncontested. The Bullfrog Apex was left in the cold--its claim to the North Bullfrog ground was completely invalidated.

Although the Apex Company owned other property, such as seven claims near the Happy Hooligan, six miles to the west of the Original Bullfrog, the company had exhausted its treasury through its hectic development of the North Bullfrog claim, and through the legal costs of the court suit. Now, with no more money to pursue further mining, and with the utter loss of public confidence prohibiting the sale of further stock, the Bullfrog Apex Mining and Milling Company quietly closed its doors and went out of

business. The company had taken a calculated gamble and had lost.³²

e. Original Bullfrog Extension

On April 13, 1905, a group of five hopeful promoters incorporated yet another Bullfrog mine, this one called the Original Bullfrog Extension Mining Company--not to be confused (except perhaps by investors) with the Original Bullfrog or with the Bullfrog Extension. The Original Bullfrog Extension was the owner of two claims called the Hillside and Hillside #1, which were situated directly north of the Delaware claim of the West Extension Company and the Delaware #2 claim of the Bullfrog Extension, respectively.

Despite the close similarity of names, the Original Bullfrog Extension was neither an "original" nor a true extension of the Original Bullfrog. That in itself was no great problem, but when potential investors figured out that the Original Extension was separated from the Original Bullfrog by the claim of the West Extension and the Bullfrog Extension, the company failed to attract much interest, and its stock was never placed on the trading boards. Nevertheless, the company went to work, with the forlorn hope that either the rich Bullfrog ledge would dip entirely through the intermediate properties and enter its ground, or that they would have the great luck of finding a separate ledge upon their own ground. By the end of 1905, pursuing these hopes, the Original Bullfrog Extension had sunk a shaft to a depth of one hundred feet, and had equipped its property with a horse whim for raising the rock.³³

32. Rhyolite Herald, 4 January, 8 February 1907. Bullfrog Miner, 8 February, 22 February, 3 May 1907.

33. Nevada Secretary of State, Articles of Incorporation, Vol 6, p. 35. Rhyolite Herald, 27 October, 3 November 1905. Bullfrog Miner, 12 January 1906.

The company continued its development work through the early part of 1906, but without much luck. Neither the Bullfrog ledge nor any other ledge appeared on its property. Then, in April, the Original Bullfrog Extension temporarily shut down work, while its superintendent traveled to San Francisco to learn the effects of that city's recent disaster upon the company's finances. The mine lay idle throughout the summer, but by September the company had recovered enough to announce that work would soon be started. Soon, however, turned out to be a long time coming, and work did not resume at all that fall. In December, with the property still laying idle, the company gave up the hope of developing the mine on its own, and advertised for a contract to sink fifty feet in the shaft. The advertisement described the company's property as being equipped with a 155-foot deep shaft, a good whim and a blacksmith shop. The company offered to provide the contractors with timbers for the shaft and with tools for mining.

The contract was let, and by March of 1907 had been completed. No ore was found, however, and the Bullfrog Miner was forced to admit that "nothing of importance has thus far developed" at the Original Bullfrog Extension. Nevertheless, the company continued to work through April, before finally giving up hope. Throughout the rest of 1907 and most of 1908 the property was dormant, with only the minimal necessary annual assessment work being done. In 1909, however, even the assessment work was not done, which meant that the Original Bullfrog Extension Company relinquished title to its claims. Another Bullfrog mine had died.³⁴

34. Rhyolite Herald, 9 February, 2 March, 7 September 1906; 4 January, 5 April 1907; 16 December 1908. Bullfrog Miner, 13 & 20 April, 1 June 1906; 29 March 1907.

f. Bullfrog Red Mountain--Rhyolite Bullfrog

The Bullfrog Red Mountain Mining Company had even less of a claim to the magic Bullfrog name than any of the above mines, for its four claims were situated almost a mile southwest of the Original Bullfrog. Undaunted, the company was organized early in 1905, and started to work, reporting that they had found ore worth \$47 per ton. Despite this claim, efforts to develop the mine were not successful. By the time the Red Mountain had organized, approximately seventy-five other companies in the district had already used the Bullfrog name, with a noticeable cheapening of its value in attracting investors. This, along with the remote location of the mine, made it evident to any half-way careful speculator that the Red Mountain outfit had absolutely no hope of cashing in on the Original Bullfrog ledge, and just as remote a chance of finding another ledge of its own. As a result, although the Bullfrog Red Mountain announced the usual incorporation of 1,000,000 shares worth \$1 each, the stock never hit the trading boards.

Before the company had really got work off the ground, the San Francisco disaster cut off operations. The mine was idle through the rest of 1906, even though it did take the public relations step of announcing that Sam Newell, superintendent of the Original Bullfrog, had also been appointed as superintendent of the Red Mountain. Unfortunately, Newell had nothing to supervise, and nothing happened.

Then, in early 1907, the mine was sold to a new group of promoters, and the cycle started all over again. The new owners, led by two men named Voorhees and Taylor, decided to reincorporate and change the mine's name, hoping thus to sever all connections in the investors' minds with the losing predecessor. Since Voorhees and Taylor were two of Rhyolite's leading stock

promoters and brokers, the new company had all the benefit of their experience and connections. From January to April, the Rhyolite newspapers carried weekly descriptions of the reorganized mine, thus keeping it in the public's mind, even though no work was being done. Finally, on April 6th, the new company incorporated itself as the Rhyolite-Bullfrog Mining Company, capitalized as usual for \$1,000,000 and with the grand total of \$1,003 in the treasury.³⁵

With a newly incorporated company and with money in the treasury, the Rhyolite-Bullfrog Company underwent a flurry of development work. Camp buildings were completed in early October, including a boarding house, stables, blacksmith shop and a superintendent's office. Sinking was resumed by three shifts of miners, \$10 ore was reported, and the company cleverly circulated the rumor through the newspapers that it had a good treasury reserve, in an attempt to bolster investor confidence. The papers were full of encouraging news carefully planted by the skillfull stock brokers running the company. During the fall and winter of 1907 reports of \$23 ore, "solid values", "promising" finds, and surface showings "the best in the district" appeared almost weekly. Then, suddenly, with the end of 1907, all work ceased. Despite all the promotional gimmicks, the mine was not attracting investors.

Through the entire years of 1908 and 1909, little work was done at the Rhyolite-Bullfrog, even though the company did display ore samples at the American Mining Congress convention in Goldfield in the fall of 1909--another good promotional

35. Rhyolite Herald, 30 June 1905; 4 January, 5 April 1907. Bullfrog Miner, 25 May 1906; 11 January, 8 March 1907. Handbook of Nevada Mines, p. 16. Nevada Secretary of State, Articles of Incorporation, Vol 11, p. 285.

stunt. That was the company's last gasp, however, and the mine lay idle through 1910 and 1911. Finally, in March of that year, the company's four claims were sold at auction by the Nye County sheriff, under a writ of execution brought by two disgruntled stockholders who wished to recover their ill-spent funds. The two men received title to the mine for their efforts, and even tried a little prospecting work on their own, but the Rhyolite-Bullfrog, nee the Bullfrog Red Mountain, soon died an untroubled death. The venture had proved once again that even the very best of promotional campaigns could not save a mine which had no ore.³⁶

Such were the varied fortunes of those who tried to find success in the shadow of the Original Bullfrog strike. As noted before, the above mines were the more honest of the many which carried the Bullfrog name, for they at least tried to find ore on their grounds. In this sense, they gave their investors a better run for their money than did the promoters who merely took stockholder's funds and ran. In the end, however, all came out equal, for no one made any money, and some merely lost it more quickly than others.

Had things been different--had the Original Bullfrog been another Comstock--these surrounding mines could have made fortunes. That was what the promoters and stockholders had bet upon, but as the twists of fate and geologic formations would have it, the Original Bullfrog itself turned out to be a low-grade proposition, despite the early finds of rich pockets of

36. Bullfrog Miner, 5, 12, 19, & 26 October, 2 November, 21 December 1907. Rhyolite Daily Bulletin, 25 October 1907. Rhyolite Herald, 1, & 8 November, 1907; 4 March, 7 October 1911. Nevada--The Mineral Empire. Souvenir of the American Mining Congress, (1909), #57-58.

gold, and the surrounding mines found no ore at all. The early demise of the Original Bullfrog thus spelled doom for all the neighboring tadpoles, but such is the nature of the mining game. You pay your money and take your chances. The story of these mines is important, though, for they are typical tales which are repeated again and again in all the camps of the western mining frontier.

g. Present Status, Evaluation and Recommendations

Due to the limited nature of the activities which took place on the property of these various mines, comparatively few structures were ever erected. Only a few of the mines had hoists or gallows frames, as most did not pass the windlass or whim methods of raising ore. Likewise, most of the mines never employed enough miners to warrant the construction of boarding houses or similar buildings. And, since all these mines failed before the general exodus of the Bullfrog district took place, the few improvements and structures located at their sites were immediately salvaged for use elsewhere, in the time-honored manner of desert mining, where wood was always a scarce commodity.

As a result, there are no structural remains at any of these mines. The only clues to past activities are the numerous pits, prospect holes, adits, and shafts which dot the landscape around the Original Bullfrog. The limited remains of these limited mining efforts are not of National Register significance.

Interpretive signs, which would point out the location of these mines, and briefly tell the story of their vain attempts to cash in on the Bullfrog bonanza, would be of historical interest and educational value to the visitor. Unfortunately, in the history of man's efforts to extract wealth from the earth, the failures of small-scale mines such as these are far more typical than is the small percentage of mines which actually made money.

4. Bullfrog West Extension Mine

a. History

While Shorty Harris was drinking in Goldfield in celebration of the discovery of the Original Bullfrog mine, he met an old acquaintance named Len P. McGarry. McGarry had been born in Eureka, Nevada, and had spent his entire life in the mining state, cutting his eye teeth on the rushes to Tonopah and Goldfield. He was the sort whom the local newspapers described as a "young man of promise," but his promises had temporarily run out, and he was looking for new fields of action. Quickly realizing the potential of the Bullfrog strike, McGarry reestablished his friendship with Shorty, and accompanied him back to the scene of the strike. There, on August 26, 1904, McGarry staked out some claims to the immediate west and north of the Original Bullfrog.

For a while, McGarry became sidetracked from mining, as he was one of the first investors and promoters of the Bullfrog townsite. His claims were recorded, but were not worked for over a year. But when the Original Bullfrog Mine started shipping its pockets of high-grade ore in 1905, McGarry regained interest in his claims, and went looking for financial backers. By December his search was successful, and on the 7th of that month the Bullfrog West Extension Mining Company was incorporated, with McGarry as president. Although the incorporation was very typical on paper, with 1,000,000 shares of stock listed at a par value of \$1 each, the company decided to retain the majority of the stock, and sold a mere 125,000 shares, at 12½¢ each, in order to raise the initial development fund. Stock sales were brisk, due to the location of the company next to the Original Bullfrog, and the West Extension was soon ready to begin work.³⁷

37. Carson City Land Office, Plat of the Bullfrog West Extension Mining Company, Survey #2590. Nevada Secretary of State, Articles of Incorporation, Foreign, #6½-1905. Rhyolite Herald, 13 October 1905; 22 March 1907. Bullfrog Miner, 29 March 1907.

From the very beginning, the West Extension had better chances of intercepting the Bullfrog ledge upon its property than any of the other Bullfrog tadpoles, simply because it was the last to begin active operations. By the first of 1906, most of the mines surrounding the Original Bullfrog were showing signs of failure, and the Original itself had lost the rich ore ledge which had stimulated the first glory days. By process of elimination, this meant that if the Bullfrog ledge went anywhere, it had to go through the West Extension property. The company followed this philosophy, and began sinking its shaft at the likeliest point.

By May of 1906, after only a few months of exploration work, the West Extension seemed to discover the first signs of the Bullfrog ledge, and the local newspapers duely reported the presence of "fine ore" in the company's shaft. Unfortunately, this was the exact time at which the West Extension discovered that the Bullfrog Apex was encroaching upon its ground, and the long and costly legal struggle, described above, began. Nevertheless, the West Extension carried on, and began taking out high-grade ore, worth up to \$200 per ton, to be sacked for future shipment.

Within a few months, the early indications seemed proven, and in July the company's directors decided to withdraw the stock from the trading market, in order to capitalize upon the future profits of the mine themselves. With the mine reporting ledges averaging \$50 per ton, with some rich pockets running as high as \$2,670, the decision seemed fully justified. For another two months the company explored, results continued to be encouraging, and in September the decision was made to shift from exploratory mining to development on a larger scale. A \$5,000 hoisting plant was ordered, consisting of a 25-horsepower Fairbanks-Morse engine, a four-drill capacity air compressor, and accessories. Len P. McGarry, who was acting as superintendent of

the mine, as well as president of the company, increased the work force to ten miners. In answer to inquiries from eager investors, the company announced that it had ample funds to pay for the escalated development plans, thank you, and that none of the company's stock would be offered for sale.

Despite the continuing annoyance of the law suit versus the Bullfrog Apex, which among other things prevented the West Extension from adding to its treasury by shipping the high-grade ore, the company forged ahead. The big new hoisting plant arrived in late October and was soon installed and working. The Bullfrog Fraction claim was purchased and the West Extension Annex company was formed to exploit it. By this time the growing West Extension complex looked so strong to local and state investors that when the company announced that it would sell 150,000 shares of the Annex stock at 15¢ each, over 50,000 shares were purchased in two weeks--despite that fact that 15¢ per share was an exorbitant price for stock in a company that had not yet commenced mining. As 1906 came to an end, the West Extension looked like one of the best properties in the Bullfrog district, even though title to some of its land was still a matter of dispute.³⁸

The mine continued to prosper in early 1907. Another shoot of rich ore, assaying up to \$900 per ton, was opened in January, and more encouraging discoveries were made the following month. The Bullfrog Miner, after describing the latest strike in its February 22d issue, concluded that even though the "West Extension is only a baby as yet," it was "unquestionably" the "finest piece of goods" in the district.

38. Rhyolite Herald, 4 & 18 May, 28 September, 2 & 16 November, 14 December 1906. Bullfrog Miner, 5 & 26 October, 23 & 30 November 1906.

Although the West Extension might be considered a baby, it had already spawned one subsidiary in the West Extension Annex company, and another soon followed. In March, the claims of the Bullfrog Teddy group, which joined those of the West Extension, were purchased, and the Bullfrog Teddy Gold Mining Company was organized. The officers and directors of this company were identical to those of the West Extension, and the promotion of the company soon began. The Teddy, the advertisements read, would be developed to catch the West Extension ledge, just as the West Extension had caught those of the Original Bullfrog, and the public was invited to share in the undoubted success of the venture. Response was again satisfying, with 140,000 shares of Teddy stock sold in March, and by April the price of the stock had risen to 16½¢ per share. Obviously, investors who were frozen out of the West Extension, since it was operating as a closed corporation, were more than anxious to get in on its neighboring prospects. After all, the West Extension had good ore reports, its neighbors probably would also, and all three companies were under the same management. Len McGarry, for example, was the president of the West Extension, the West Extension Annex, and the Bullfrog Teddy, and would also be the superintendent of all three mines. In addition, Bullfrog Teddy and West Extension Annex stock was available for purchase from the office of the L. P. McGarry Brokerage Company of Rhyolite, Nevada.

Things were going so well for McGarry that he even ordered a hoisting plant for the Teddy, before active developments commenced. His luck held. During the next few weeks the West Extension found more ore, some assaying up to \$264 per ton, and the Teddy found a ledge averaging \$26.40. McGarry publicly offered to buy back the stock of the West Extension from anyone who had been lucky enough to purchase it the last fall, but no one seemed willing to sell. When the board of directors of the company held its first annual meeting on March 15th, the directors

were so impressed with McGarry's reports that they voted once again to keep West Extension stock off the trading board. This decision meant that the directors would have to finance development work on their own, but that seemed to be no problem, as the papers reported that \$50,000 was raised in fifty seconds.³⁹

By this time the West Extension properties were becoming famous throughout Nevada, and Len McGarry granted an interview to a reporter from the Reno Journal. The mine, he said, had rock averaging \$20 per ton throughout its workings, more than enough to support a mill upon the site, and had encountered pockets and streaks of free gold, one of which assayed at \$10,000 per ton. By the end of March the hoisting plant for the Teddy had arrived, the two shifts of miners at the West Extension had piled over a hundred tons of high-grade ore on the dump, and McGarry announced that the mine had thousands of tons of milling grade rock in sight. Again, rumors of a proposed milling plant were circulated.

Another strike of \$99 ore was made at the West Extension in April, and the Teddy completed the installation of its hoisting plant and a blacksmith shop. Then, in May, the big news came. The West Extension won its suit against the Bullfrog Apex, and was finally free to develop its mine unmolested, and to ship its high-grade ore, which was sacked and ready on the dump. Strangely enough, however, the company did not ship. Instead, development work went along as usual for another month, and then the mines were suddenly shut down. The company announced the

39. Bullfrog Miner, 11 & 25 January, 22 February, 1, 8 & 15 March 1907. Rhyolite Herald, 25 January, 15 February, 8 March 1907. Nevada Secretary of State, Articles of Incorporation, Foreign, #58½-1907.

official reason for work stoppage as being the need to thoroughly survey the mines, in order to draw up final development and production plans, and to come to a decision regarding the construction of a mill. The shut-down, McGarry assured the papers, was only temporary. Holders of Bullfrog Teddy stock, however, were not fully convinced, and the price of the stock plunged to 3¢ per share.⁴⁰

The mine was idle until the end of August, when the company announced its new plans, based upon the recommendations of several mining engineers who had inspected the ground during the shut-down. Once the decisions were reached, the mines reopened, work resumed and progressed satisfactorily throughout the fall, despite the effects of the panic of 1907. By December the owners announced that they had \$195,000 worth of ore blocked out in the mine, and the directors again contributed more cash to finance the work. Again, rumors circulated through the newspapers concerning the erection of a milling plant for the West Extension. But despite all these indications of success, something was wrong with the finances of the company. The 1907 county property taxes were not paid on time, and for the want of \$46.20 the property was listed on the delinquent list for several months.

In January of 1908, the West Extension executed another suspicious move, when that company bought out the stock of the Bullfrog Teddy. Although this would seem to be a meaningless move on the surface, since the two mines were already operating as one, it made a difference to stockholders of Teddy stock. The merger was quick, and the stockholders were helpless to prevent it, since the major stockholders and directors of the

40. Rhyolite Herald, 22 & 29 March, 19 April 1907. Bullfrog Miner, 29 March, 5 April, 3 May, 22 June, 7 August 1907.

Bullfrog Teddy were one and the same with those of the West Extension. The real effect was that Bullfrog Teddy stock immediately became worthless, and according to the dictates of the directors, holders of it were forced to exchange it for stock in the West Extension at a ration of four to one. Bullfrog Teddy stock had last sold for 6¢ per share on the Rhyolite exchange, so for the stockholders to come out even West Extension stock would have to be worth at least 24¢ per share. But since West Extension stock was untraded, no one knew for sure what it was worth, except the directors of the company. In summary, the dealings of a company which formed a subsidiary, sold stock in it, and then absorbed that company and forced stockholders to exchange their stock for one of unknown value, were suspect.

In order to bolster the confidence of the suspicious stockholders, the West Extension announced at the same time that it was planning to construct a reduction plant at Gold Center, where ample water supplies were available; and that new financial backers had pitched their lot with the West Extension, including John Campion of Leadville, Colorado, and Fred Bonfils, one of the owners of the Denver Post.⁴¹

Hardly had these grand organization and building plans been announced, than another peculiar event took place. During the second week of February, the West Extension granted an eighteen-month lease to a pair of miners, for mining rights on a portion of the Delaware claim--the same claim for ownership of which the company had been willing to fight the Bullfrog Annex. Ordinarily, a company which had ample capital and a promising mine, which the West Extension claimed to have,

41. Bullfrog Miner, 31 August, 7 September 1907; 18 January, 1 February 1908. Rhyolite Herald, 29 November, 20 December 1907. Nye County Recorder's Office, 1907 Assessment Roll, Rhyolite.

would never lease a portion of its property, since the employment of lessees cut down on the potential profit of the mine. Yet the West Extension, which had never looked better, according to the reports it released to the Rhyolite newspapers, was doing just that. No one seemed to question why. The lessees, however, were not about to look a gift horse in the mouth, and immediately incorporated themselves as the West Extension Leasing and Milling Company, and went to work.

By the middle of March, the plans of the company changed once again. This time, the West Extension announced that it had reached an agreement with financiers from Salt Lake City and Chicago relative to the construction of a mill. In return for the West Extension's guarantee to deliver 20 tons of milling ore per day for one year, the financiers announced plans for the construction of a custom reduction mill at Beatty. At the same time, the West Extension also announced that the U.S. Government had approved its patent application for the Delaware, Ethel and Jumbo claims. Following these announcements, development proceeded at the mine, and the company shortly reported the location of another ore body, this one assaying as high as \$800 in spots, with average values throughout of \$40.

The company now had three shifts working its mine continuously, and began to stope the best ore for future milling operations. The mine superintendent reported that he could extract forty tons of milling grade ore per day without untoward effort. The major stockholders and directors of the mines continued to be impressed with its prospects, and once again raised \$50,000 among themselves during the annual meeting on March 28th.

More strikes were reported in April, as the mine continued to find good ore. Assay reports differed from week to week, but it was undeniable that the West Extension had

sufficient ore to support a mill. Work started on the custom mill at Beatty, and the construction superintendent estimated that the 10-stamp complex would be ready to accept ore in ninety days.

Work was "pushed night and day" as April gave way to May. The company announced that the average ore throughout the mine assayed from \$22 to \$30, which would make the West Extension one of the richest mines in the Bullfrog district, were it true. Yet at the same time that the company was making final arrangements for the milling and production of its ore, it also inexplicably let another lease on its property, for the duration of one year.⁴²

As the summer progressed, developments continued. The West Extension worked its ten miners in two shifts during these hot months, and announced plans to raise the payroll to thirty--which was not done. The papers continued to announce good ore finds in the mine, and the lessees also reported good luck, one of them sacking thirty sacks of high-grade ore within the first month of operation. A constant stream of visitors inspected the now-famous mine, and all came away murmuring that they were impressed. But, on June 1st, an event occurred which the West Extension company did not report to the friendly papers, for the summer installment of county taxes on the Bullfrog Teddy property was not paid.

In August, the company announced that it already had over \$50,000 worth of milling ore stacked on the dump, awaiting the completion of the custom mill at Beatty, and that it had the capacity to deliver up to forty tons of ore to the mill per day.

42. Rhyolite Daily Bulletin, 5 February, 23 & 30 March, 27 April 1908. Bullfrog Miner, 8 February, 7, 14, 21 & 28 March, 4 April, 2 May 1908. Nye County Recorder's Office, Deeds, Vol. 19, p. 373.

The company also announced an agreement with the Las Vegas & Tonopah Railroad, whereby an 850-foot spur would be built to the mine. In return the West Extension guaranteed to ship thirty tons of ore per day via the railroad at a cost of 60¢ a ton--a substantial reduction of the usual freight rate.

Towards the end of August, however, hitches began to develop in company's plans. The mill promoters announced delays in construction, due to difficulties in obtaining machinery and parts, and the West Extension, with time and money running out, began to negotiate with the Montgomery-Shoshone Mill about the possibilities of getting its ore treated there. In September, with the Beatty custom mill still far from complete, the West Extension finally made its first shipment of ore, twenty-five tons worth an estimated \$2,000, to a smelter at Murry, Utah. After over two years of development and promotion, the West Extension had belatedly entered the list of Bullfrog producers.⁴³

As October went by, the Beatty custom mill still showed no signs of an early completion date. The impatient West Extension directors held more talks with the Montgomery-Shoshone Company, but no agreement was reached. Negotiations were also initiated with the Bonnie Claire Mill, approximately twenty miles north of Rhyolite, but again the results were unsatisfactory. The West Extension therefore decided to attempt to build its own mill, at the mine site, and began preliminary surveys for a water pipeline from Rhyolite to the mine.

Even though a decision to build a mill meant that the West Extension would need more money than ever, the

43. Bullfrog Miner, 9 & 16 May, 13 June, 1 August, 5 September, 3 October 1908. Rhyolite Herald, 5, 19 & 26 August 1908. Nye County Recorder's Office, 1907 Assessment Roll, Rhyolite.

company also decided not to ship any more ore, preferring to wait and run it through its own mill in the future. The company also decided once again to avoid selling West Extension stock to raise money, and the directors met in Utah with their Colorado partners to iron out the details of the financial campaign. The results of that meeting were evidently satisfactory, for after the surveyors reported that water could be piped from Rhyolite to the mine site, the company announced that it would definitely build a mill. During the latter part of November, survey teams inspected the area around the West Extension mine, prior to selecting the best site for the mill.

Several mill machinery companies were invited to submit plans for the mill, and alternate proposals soon came rolling in. Since the mine had sufficient ore on the dumps for several months of mill supply, and more in the mine ready to hoist to the surface, the underground miners were laid off, until final details for the future of the mine and mill could be reached. Towards the end of December, 1908, the company tentatively agreed to mill plans submitted by the Joshua Hendy Company of San Francisco. The plans called for the erection of a 10-stamp mill, with treatment by stamp crushing, followed by plate amalgamation, the "perfect" system of concentration and final treatment by cyanide lixivation. The plant was to be powered by electricity, and the Hendy Company estimated that it would take four months to build. Final contracts for the construction of the mill awaited only the official approval of a meeting of the full board of directors.

Thus, as 1908 ended, the West Extension appeared to be poised on the verge of becoming one of the Bullfrog district's important producers. Still, with all its promise, signs of financial difficulties continued to appear in the organization. In 1908 the Nye county taxes on the West Extension property were again paid late. Taxes on the Teddy property owned by the

company were not paid at all, as the Bullfrog Teddy Mine had been abandoned shortly after the merger of the two companies. Ironically, a United States patent to the abandoned mine was received on January 15, 1909.⁴⁴

During the first months of 1909, the ambiguity surrounding the future of the West Extension did not become any more clear. The directors held their annual meeting on January 30th, and re-elected Len P. McGarry as president of the company. That, however, was the only definite news release to the press. Although the Rhyolite papers felt "certain" that the mill plans were approved, they were also forced to admit that "Little is being said about the mine proper of late, and it is impossible now to estimate with accuracy its ability as a producer." The silence of the company seemed ominous, since it had always been the first to let the papers know whenever something good was to be reported.

In the meantime, the West Extension Mine lay idle, as the directors tried to figure out what to do next. As January gave way to February and March, the directors still failed to reach a decision, and the mine, with its reported \$50,000 worth of ore on the dump, was not touched. Rumors circulated that the Montgomery-Shoshone had taken a lease on the West Extension property, in order to ship its ore to the Shoshone Mill, but nothing happened. During the summer, several independent leasing outfits attempted to secure rights to work the ground, but all were unsuccessful, and the mine still lay idle.

By September of 1909, the West Extension Mine had not been worked for almost a year, and creditors of the

44. Bullfrog Miner, 3 October, 7, 14, 21 & 28 November 1908. Rhyolite Herald, 4 November 1908. Mining World, 17 October 1908, p. 621. Nye County Recorder's Office, 1908 Assessment Roll, Rhyolite. Carson City Land Office, Record of Patent, #88070.

company lost patience. A Goldfield legal firm sued the company to recover \$2,400 in back fees, and a group of Rhyolite merchants were forced to initiate another suit to recover a paltry \$600 in overdue bills. The company, in the meantime, underwent a private reorganization, and G. S. Johnson replaced Len McGarry as president. No reason was given for the change of leaders. Johnson promised payment in full to all creditors, and tried to dampen the unwelcome publicity, but gave no explanations for the recent puzzling lack of action at the mine. Despite Johnson's promises, however, the company's debts were not paid, and the creditors were forced to take the matter to court. The Bullfrog Miner expressed the public's bewilderment at the strange lack of action at the West Extension, for according to the company's reports, it could easily liquidate all debts merely by shipping the ore it said it had ready on the dump. Still, nothing happened.

By the end of 1909, the inevitable result was beginning to become plain for all to see. The last official announcements of the West Extension Company had been full of breathless figures of ore on the dumps, enormous ore deposits in the mine, and plans for a reduction mill. That, however, had been over a year previous, and nothing had been done since. The Mining World assessed the West Extension as a promising property, but "one in which lack of ample capital is holding back work, while absence of milling facilities is keenly felt. Much of the ore on this and other properties is of too low grade to warrant shipping to smelters." The Nye County Treasurer also summed up the situation in his own inimitable way, for when the West Extension failed to pay its 1909 county taxes on time, he immediately placed the property on the delinquent tax list.⁴⁵

45. Bullfrog Miner, 16 & 30 January, 7 August, 11 & 25 September 1909. Rhyolite Herald, 24 March 1909. Rhyolite Daily Bulletin, 30 March 1909. Mining World, 11 December 1909, p. 1159. Nye County Recorder's Office, 1909 Assessment Roll, Rhyolite.

By 1910, the West Extension appeared to be a dead mine, but the local folk refused to let it die in peace. Indeed, the entire Bullfrog District was in a decided decline by now, but the stalwart at heart refused to believe. Admittedly, some of the most promising mines in the district had already gone under, but in the eyes of the faithful the Bullfrog District was not yet finished. The lead article in the January 1st issue of the Rhyolite Herald, entitled "New Years Dawn Full of Promise," symbolized the optimism of the remaining Bullfroggers. With this attitude, it is a small wonder that the papers would not leave the West Extension alone, for it had been one of the latest mines of promise, and to admit that it had failed would be to admit the same for the entire district. As the above article continued, the West Extension, surely, "will be soon put into shape for production."

Accordingly, every straw was seized at. When a mining engineer from the huge Goldfield Consolidated firm, for example, made an inspection of the West Extension property in June and again in November, the paper hopefully printed rumors of the purchase and re-opening of the mine. Likewise, when the West Extension Company reorganized and reincorporated itself in September, the Herald saw certain signs of the imminent resumption of work. But 1910 ended the way it had begun--no work was done on the property for the second straight year, and the company's taxes were again delinquent. To add insult to injury, the private residence of Len P. McGarry, former president of the Bullfrog West Extension Mining Company, the Bullfrog Teddy Mining Company, the West Extension Annex Mining Company and the L. P. McGarry Brokerage house, was also placed on the delinquent list for the non-payment of county taxes.⁴⁶

46. Rhyolite Herald, 1 January, 18 June, 5 November 1910. Nevada Secretary of State, Articles of Incorporation, Foreign, #6 $\frac{1}{2}$ -1905. Nye County Recorder's Office, 1910 Assessment Roll, Rhyolite.

As usual, things got worse before they got better. In April of 1911 the West Extension estate was put under the auctioneer's hammer, to satisfy the claims of its creditors, who had won their suits against the company. As the Rhyolite Herald sadly noted, "The Extension is one of the truly bright prospects of the camp, and it is a matter of deep regret that financially it is on the breakers."

Towards the end of the year, however, prospects revived. The Mayflower Leasing Company, a consortium of promoters who were not yet ready to give up on the Bullfrog district, decided to take a look at the West Extension. The Mayflower Company had already had a limited degree of success in combining the ore output from several mines in the district for reduction at the Eclipse Mill, which it owned, and it soon decided that the West Extension could make a contribution towards this effort. In December, the company executed a long-term lease with the West Extension and announced that it would put two shifts of miners at work to extract ore for its mill. Interestingly enough, the Mayflower spokesman gave the Rhyolite Herald a much lower estimate of the value of the West Extension's ore than the figures received from McGarry et. al. in past years. The leasing company's assays showed that the mine had average values of from \$12 to \$15 per ton, enough to give the company a profit after deducting the foreseen costs of \$7 per ton for mining, freightage and milling. The grateful McGarry, who was still listed as the principal owner of the West Extension, was finally able to pay the 1911 county taxes of \$110.80, from the proceeds of the lease.⁴⁷

47. Rhyolite Herald, 1 April, 7 October, 25 November, 9, 23 & 30 December 1911. Nye County Recorder's Office, 1911 Assessment Roll, Rhyolite.

As 1912 opened, the West Extension was thus literally given a new lease on life. This was made more evident on January 13th, when the Mayflower Company announced that it had gone one step beyond the leasing agreement, and had bought the West Extension property outright. The mine would be opened soon, the announcement continued, the long-awaited railroad spur to the property would be built, and best of all, the Mayflower itself would be reorganized, so that stockholders would have "a chance to get in on the new company." The Rhyolite Herald was estactic. This "is the first ray of sunshine with no clouds hovering near that Rhyolite has seen for many a day. This may prove the starting of a new era for the Bullfrog region, and be the first of a large number of companies to commence operations on a sensible, economical basis, and show to the world that this district can become a steady and profitable producer."

Although everything the Herald hoped for did not come to pass, the Mayflower Company did begin work. By February 10th, the mine and mill were both operating, and within a week the Eclipse Mill was treating twenty-five tons of West Extension ore per day. The new manager of the West Extension Mine estimated that it had enough ore in sight to supply the mill for one year, unless new ore bodies were uncovered. In the meantime, L. P. McGarry, left out in the cold, watched helplessly as the First National Bank of Rhyolite sold 30,000 of his shares in the old West Extension at auction, for repayment of a bad debt of \$3,800.

By March, the reorganization plans of the Mayflower Company were complete, and it announced its incorporation as the Southern Nevada Mining company. The main assets of the new company were the West Extension Mine and the Eclipse Mill, as well as leasing rights on several other mines. The following week, the first cleanup was made at the mill, and the

bullion was shipped to Utah. The company made no public statement concerning the estimated value of the recovered gold.

Another cleanup was made in the latter part of March, although no values were given, and holders of old West Extension stock were advised to exchange it for the new Southern Nevada stock as soon as possible. By the first of April, the mill had consumed the ore from the West Extension dumps, and the mine began extracting ore from the depths for shipment to the mill. A new boarding house was built at the mine, and the mill made another shipment of bullion. The March report of the Southern Nevada stated that 830 tons of West Expansion ore had been reduced, with an extraction rate of 90% of the gold value.

The success continued through May. Bullion shipments were made regularly, and the Las Vegas & Tonopah Railroad announced that the traffic flow warranted all north and south-bound trains stopping at the West Extension, for pickup and discharge of freight, ore and passengers. (The passenger rate from there to Rhyolite was 25¢.) As May passed into June, the Rhyolite Herald reported continued success in both the mine and the mill, and the company reported that enough ore had been blocked out in the mine to supply the mill for another year.

That, however, was one of the last reports printed by the Rhyolite Herald, for the last surviving paper of the Bullfrog district ceased publication on June 22d. Although the Southern Nevada mine and mill were enjoying success, not enough other mines were still operating in the district to support the paper. As a result of the Herald's demise, our day-to-day knowledge of the West Extension comes to an end, and the recorded history of the mine becomes much more sketchy.⁴⁸

48. Rhyolite Herald, 13 January, 10 & 17 February, 2, 9, 23 & 30 March, 6 & 20 April, 25 May, 15 & 22 June 1912.

We do know that the Southern Nevada was still operating the West Extension property at the end of 1912, for the company readily paid its taxes of \$39.38, assessed on personal property consisting of one 15-horsepower Fairbanks-Morse hoisting engine, an engine house, a blacksmith shop, a gallows headframe, and mining tools. Sometime in 1913, however, the mine ran out of ore, as had been predicted, for the 1913 taxes were not paid. Apparently the mine was shut down rather early in 1913, for the tax rolls noted that less than \$100 worth of labor had been performed on the company's claims that year.

But the Southern Nevada was not yet ready to give up. From 1914 to 1920, the company maintained enough faith in the future of the mine to pay taxes each year, even though no work was performed. Then, in 1921, the taxes were marked delinquent, and the property was deeded to the care of the Nye County Treasurer the following year.⁴⁹

The West Extension Mine was dormant through the rest of the decade, until 1929, when its fortunes became intertwined with those of the Original Bullfrog. As noted before, the magic of the Bullfrog name survived the life of the Bullfrog District, and between 1929 and 1978, various individuals, out of hopes of profit or feelings of loyalty to a bygone era, bought, sold, operated and leased the Original Bullfrog, the West Extension and other ghost mines of the district. During the majority of this time, the West Extension and the Original Bullfrog were owned by the same people, and neither enjoyed any significant recovery. Some of its owners merely held title for a period of years, and some, like the Burm-Ball Mining Company, operated the mine or leased it to others. Production was minimal and profits undoubtedly nonexistent, but the owners held on in hope and faith. The West

49. Nye County Recorder's Office, 1911-1922 Assessment Rolls, Rhyolite.

Extension property was last purchased in 1976 by Boyce Cook and Lenard Cruson, the owners of the Original Bullfrog Mine.⁵⁰

In terms of longevity, the West Extension was one of the most successful mines of the Bullfrog District, for it outlived the Original Bullfrog, all the Bullfrog tadpoles, and even the Montgomery-Shoshone Mine, which recorded the largest ore production in the district. In terms of profit, however, the West Extension could hardly be termed a success. The mine never made any money during the McGarry years, and whether or not it did while operated by the Southern Nevada is an unanswered question, due to the failure of latter to publish bullion figures. At best, the West Extension mine can only be considered as a very minimal producer.

But the mine did typify several aspects of early twentieth-century business procedures. It was an early and "close in" location, in the best traditions of mining, and was promoted by one of the Bullfrog District's most skilled stock dealers. Had the mine proved to be a bonanza, which was always the hope of its owners, they would have become relatively rich. Since it did not, they at least lost their own money, and comparatively little of others'. Thus, despite several shady deals, such as those surrounding the sale of Bullfrog Teddy and West Extension Annex stock, the attempt to develop the West Extension Mine seems to have been fairly honest. Finally, like all the other Bullfrog mines, the West Extension was able to extract ore at a profit only when it was operated on a large-scale and tight economic basis. The West Extension proved, if nothing else, that the best promotion and intentions in the world will fail to make a winner out of a low-grade mineral deposit.

50. Nye County Recorder's Office, 1923-1978 Assessment Rolls, Rhyolite.

b. Present Status, Evaluation and Recommendations

Due to the close proximity of these two mines, the West Extension has rarely been identified as a separate mine from the Original Bullfrog. The confusion is natural, since the pits, shafts, tunnels and dumps of the two mines run into each other on the ground, and especially since the two were owned and operated as one between the 1930s and the present. Given this status, and the fact that their histories are closely connected, there is no compelling reason to treat them separately at this point.

The physical structures remaining on these sites are not impressive. Both mines show evidence of much work, with numerous shafts, dumps, etc., dotting the landscape. In addition, a collapsed headframe, a water tank, a cement engine foundation and timber debris are scattered around the area. All in all, the two sites denote the scene of much past activity, but very little remains with which to interpret that past.

Nevertheless, the Original Bullfrog-West Extension site will be nominated to the National Register, due to the tremendous impact which the discovery of the Original Bullfrog Mine had upon the entire southern Nevada and southeastern California region. The discovery of the Original Bullfrog was the catalyst for one of the most colorful and enthusiastic mining booms in the area, and certainly sparked the greatest mining effort that Death Valley has ever seen. As such, the site of the original mine should be preserved. In addition, the sites of the Original Bullfrog-West Extension mining camp and of the short-lived tent town of Amargosa deserve the attentions of a historical archaeologist.

The interpretive potential of this site cannot be overstated. At present, there are absolutely no signs or indications of where the Original Bullfrog Mine is, or what it meant to the history of this entire desert region. Indeed, on most of the

roads leading into the Bullfrog District, there are no signs informing visitors that they have entered National Monument boundaries. At the very least, interpretive signs, and something on the order of an outdoor exhibit should be erected at the site, in order to tell the story of the discovery and history of the Original Bullfrog and West Extension mines, and their influence upon the surrounding territory. The interpretive exhibit should also include a brief description of the canvas city of Amargosa, the first in the district, which was platted on National Park Service land, just south of the Original Bullfrog Mine.